

09/892,773

REMARKS

Claims 1, 3-11, and 13-19 are pending in this application of which claims 1, 3, 5, 10, 11, 13, and 15 are independent. In light of the following remarks and claim amendments, this application stands in a condition for allowance.

Information Disclosure Statement

The Examiner attached to the Office Action an initialed copy of the Information Disclosure Statement (IDS) filed concurrently with this Application to indicate that the references cited therein have been considered. However, the Office Action summary page did not indicated that the initialed IDS was attached. Receipt of the initialed IDS is hereby acknowledged.

Claim Amendments & Allowable Subject Matter

Objection has been made to claims 3-9 and 13-19. However, as the Examiner indicates, these claims would be allowable by rewriting them in independent form. Accordingly, claims 3, 5, 13, and 15 have been rewritten in independent form. Claims 3 and 5 each incorporate the subject matter of original claim 1, and claims 13 and 15 each incorporated the subject matter of original claim 11. These claims and claims dependent therefrom (claims 4, 7-9, 14, and 17-19) are in a condition for allowance. Claims 1, 6, 10, 11, and 16 are addressed further below.

Claim Rejections

The Office Action rejects claims 1 and 11 under 35 U.S.C. §102(b) as being anticipated by Hashimoto (U.S. Patent No. 5,896,134); rejects claim 10 under 35 U.S.C. §102(b) as being anticipated by Paris, II (U.S. Patent No. 5,088,054) ("Paris"); and rejects claims 2 and 12 under 35 U.S.C. §103(a) as being unpatentable under Hashimoto.

09/892,773

Rejection of claims 1 an 11 under 35 U.S.C. § 102

Claims 1 and 11 have been amended by incorporating the subject matter of claims 2 and 12, respectively, thereby overcoming the anticipation rejection. It is respectfully solicited that the Examiner withdraw the rejection of claims 1 and 11 under 35 U.S.C. §102(b).

Rejection of claim 10 under 35 U.S.C. § 102

Paris teaches a device for removing hidden graphics in a three-dimensional display. The concepts that the Examiner focuses on are disclosed in column 2, lines 34-57, which teaches replacing a Z-coordinate value based on a comparison of a new Z-coordinate value with a previously displayed Z-coordinate value. If the previously displayed Z-coordinate value represents a point closer to the viewer than the new Z-coordinate value, the new value is discarded and is not stored in the register. On the other hand, if the new Z-coordinate value represents a point closer to the viewer than the previously displayed value, the new Z-coordinate value and color information are loaded into the depth and color registers, respectively, for the same pixel.

In other words, Paris loads a new Z-coordinate value and color information into the depth and color registers *only* when the new Z-coordinate value represents a point closer to the viewer than the previously displayed object. When the previously displayed object is closer than the object to be displayed based, Paris maintains existing Z-coordinate and color information in the depth and color register. Paris fails to disclose or suggest “a color data setting unit for setting the color data of the object in said color register when the depth coordinate value of the relevant object is not greater than a threshold value, *and* setting a prescribed value in said color register so that the object having the depth coordinate value greater than the threshold value is prevented from

09/892,773

being displayed when the depth coordinate value of the relevant object exceeds the threshold value," as amended claim 10 recites.

Because Paris does not identically disclose each and every element of claim 10, it is respectfully submitted that the anticipation rejection has been overcome and should be withdrawn.

Rejection of Claims 2 and 12 under 35 U.S.C. § 103

Patentability of amended claims 1 and 11 will be addressed with respect to the obviousness analysis of cancelled claims 2 and 12, which were incorporated into claims 1 and 11, respectively, although the obviousness rejection has been overcome by canceling claims 2 and 12.

As to the Examiner's assertion that claims 2 and 12 would have been obvious over Hashimoto, we disagree as explained below.

Hashimoto discloses a method and device for removing hidden Z-coordinate data in a three-dimensional image stored in a Z-buffer. The Examiner focuses on the concepts disclosed in column 6, line 20-column 7, line 35, and Figs. 3 and 4, where Hashimoto discloses the ability to change the opacity value (*i.e.*, the transmittance value) according to a modulator control signal and a depth coordinate value. However, the Examiner acknowledges that Hashimoto fails to explicitly disclose that the depth coordinate value of the object may be set as the transmittance value. More particularly, the Examiner acknowledges that Hashimoto fails to disclose "wherein said transmittance setting unit sets the depth coordinate value of the object as the transmittance of the relevant object," as claim 1 recites, and "wherein said step of setting the transmittance of the object includes the step of setting the depth coordinate value of the relevant object as the transmittance of the object," as claim 11 recites, to which Applicants agree.

09/892,773

The Examiner then refers to the current specification for a teaching that the Z-coordinate value may be set in the claimed manner. Specifically, the Examiner states that “[A]pplicants’ specification states, at p. 4, ll.1-8, that the Z-coordinate value is set to the transmittance value so that a drawing object on a display image becomes more transparent as its Z-coordinate value becomes smaller, i.e., the drawing object comes closer to the front.” (See Office Action, section 11, page 5). As to motivation to combine, the Examiner states that “[the teaching of the specification] would have been obvious whether or not the Z-coordinate value was set to the transmittance value, and Hashimoto recognizes this (col. 8, ll.36-39).” The section cited by the Examiner corresponds to claims of the Hashimoto patent – “changing said opacity value based on said result of said Z operation, thereby displaying said object whose transparency changes according to the distance and thickness with reality.” As understood by Applicants, the Examiner argues that “changing said opacity value based on said result of said Z operation” accomplishes the same result as setting “the depth coordinate value of the relevant object as the transmittance of the object,” as claims 1 and 11 recite, making the recited claim limitations obvious.

The Examiner’s analysis is flawed, and does not satisfy the Examiner’s burden of proof for establishing a *prima facie* case of obviousness. The focus of an obviousness analysis is *not* whether the prior art accomplishes similar or same results, rather whether the combination of the teachings discloses all of the elements of the claims, provided there is motivation to combine the teachings. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings. Second, there must be a reasonable expectation of success for the proposed combination.

09/892,773

Finally, the prior art references when combined must teach or suggest all of the claim limitations.

As to the first criteria, the Examiner's analysis focuses on the result of setting "the depth coordinate value of the relevant object as the transmittance of the object," as claims 1 and 11 recite, and finds arguably similar results. Based on this rationale, the Examiner asserts that it would be obvious. Still, the Examiner has not provided any motivation to modify Hashimoto in the *claimed* manner.

As to the second criteria, there must be a reasonable expectation of success for the proposed combination. It follows that since the Examiner has not proposed to modify Hashimoto so as to set "the depth coordinate value of the relevant object as the transmittance of the object," as claims 1 and 11 recite, there is no expectation of success.

Also, Hashimoto does not set the depth coordinate value as the transmittance of the object. Rather, Hashimoto performs an operation to calculate a new transmittance or opacity value, and transmittance changes according to distance and thickness. Assuming *arguendo* that Hashimoto could be modified in the claimed manner, transmittance would not change according to distance and thickness. Rather, transmittance would be proportional to both distance thereby rendering Hashimoto unsatisfactory for varying transmittance according to both distance and thickness. Case law is clear that a proposed modification cannot render prior art unsatisfactory for its intended purpose, as would be the case here.

As to the third criteria, the prior art references when combined must teach or suggest *all* of the claim limitations. The Examiner seems to acknowledge that Hashimoto does not disclose all of the claim limitations. Moreover, "changing said opacity value based on said result of said Z operation," as in Hashimoto, is not the same as setting or a

09/892,773

setting unit for setting "the depth coordinate value of the relevant object as the transmittance of the object," as claims 1 and 11 recite. Thus, the combination, if any, fails to teach or suggest *all* of the claim limitations.

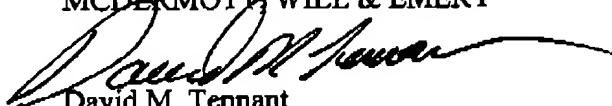
For at least the above reasons, the Examiner has not established a *prima facie* case of obviousness, and claims 1 and 11 are patentable over prior art of record. Claims 6 and 16 are patentable based at least on dependency to claims 1 and 11, respectively.

If the Examiner has questions regarding this response or the application in general, the Examiner is encouraged to contact the undersigned in order to expedite prosecution of this case.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

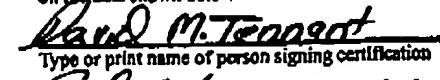
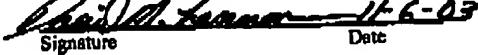
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